[*English*]

Tehri Dam Project

*48. DR. LAXMINARAYAN PANDEYA:
SHRI PIUS TIRKEY:

Will the Minister of POWER AND NON-CONVENTIONAL ENERGY SOURCES be pleased to state:

(a) whether the Government have re-examined the safety aspects of the Tehri Dam Project in view of the recent devastating earthquake in the Garhwal Himalayas;

(b) if so, the conclusion arrived at; and

(c) the further steps proposed to be taken in light thereof?

THE MINISTER OF STATE OF THE MINISTRY OF POWER AND NON-CONVENTIONAL ENERGY SOURCES (SHRI KALP NATH RAI): (a) to (c). In view of the views expressed in various quarters about the safety of the Tehri Dam vis-a-vis the seismicity of the area, various studies have been conducted and safety of the Tehri Dam examined by a High Level Committee of Experts constituted by the Government in March, 1990. The Committee, which included specialist scientists and engineers in the related field, had after carefully going into the matter and after assuming the worst earthquake scenario of Magnitude 8 + on the Richter Scale, and with a probable source of such an earthquake at a depth of 15 Kms. below the Dam site, concluded that Tehri Dam Project as proposed would be safe. They also concluded that all dangers arising out of seismic potential of the site had been taken note of and taken care of in the planning and designing of the Tehri Dam Project. The matter was again referred to an independent seismological expert of international repute. After examing the report of the High Level Committee of Experts and examining further literature and reference including latest international findings on advances in earthquake engineering, he concurred with the conclusion of the High Level Committee of Experts and recommended that:-

> "Since conservatism has entered at almost every step of decision making, the overall factor of safety of the dam is high enough to eliminate any risk from earthquakes of the future."

> "I have no hesitation in recommending that the proposed dam section for the Tehri Project is safe from the point of view of seismicity of the region."

The Department of Mines constituted an Expert Group under Director General, Geological Survey of India to consider the matter further and carry out critical appraisal of the safety aspects taking into account various misgivings being expressed. The Group found the design of the Dam to be safe from the point of view of the seismic potential of the region. The conclusion of the Group were accepted by Department of Mines.

The earthquake which occurred on 20.10.1991 in the Garhwal Hill measured 6.1 on the Richter Scale, while the proposed Tehri Dam is designed to withstand an earthquake of Magnitude 8+ on the Richter Scale. The present earthquake has caused no damage to constructed structures of Tehri Dam i.e. head race tunnels, diversion tunnels and dam foundation.

Since the design of the dam has been found to be safe for the intensity of earthquake expected in the region, re-examination of its safety aspects does not arise.